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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,705	12/04/2001	Hideki Fukano	P/3241-21	8623

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EXAMINER

JACKSON JR, JEROME

ART UNIT	PAPER NUMBER
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2815

DATE MAILED: 11/01/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/005,705

Applicant(s)

FUKANO, HIDEKI

Examiner

Jerome Jackson Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-17 is/are pending in the application.
- 4a) Of the above claim(s) 2,3,11 and 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-10 and 13-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/184,218.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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Claims 2, 3, 11, and 12 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 4.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4-10, 13-17, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 4 the recitation "an end surface of the substrate growth layer except..." does not have proper antecedent basis. The entire paragraph is confusing and vague and indefinite of exact structure. It is unclear whether the claim is attempting to recite photodetector layers which are spaced from the edge of the substrate or not. Other claims are rejected for dependence on a rejected claim. Claim 8 is vague and indefinite because "an end surface..." does not have proper antecedent and it is unclear whether the "end surface" is part of the substrate or photo-absorption part. Likewise it is unclear where the groove is. The entire structure is vague and indefinite. Other claims are rejected for dependence on a rejected claim. Claim 9 is vague and indefinite because claim 8 is a device claim rather than a method. Claim 13 is rejected similar to claim 8 "end surface...". Moreover, the recitations "the surface side", "protruded by..." are vague and indefinite of exact structure. Claim 14 is likewise rejected "an end surface...", "surface side...", "a main reaching area...", etc. Claim 15 is also likewise rejected, "an

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end surface...", the surface side...", "space...is buried in...", etc. is vague and indefinite of exact structure.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-7, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's prior art admissions in view of Gofuku '560.

Inasmuch as claim 4 is indefinite of exact structure and it is unclear whether the photodetector layers are located away from the edge of the substrate, claim 4 does not distinguish over applicant's prior art figures practiced with a Schottky barrier based detector. Schottky barrier detectors are notoriously well known and '560 specifically teaches and suggests InAlGaAs material.

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Claims 8- , as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's prior art figures in view of Taki '510.

From Taki it would have been obvious to have practiced a grooved optical fiber guide/holder with applicant's prior art structure to enable secure alignment with the photodetector. Claims 8 and 9 are obvious structure. Claim 9 is rejected because the product by process language does not structurally distinguish the final product over the applied art.

Patentability of a product by process claim is determined by the final product, regardless of how actually made, *In re Hirao* 190 USPQ 15 at 17 (footnote 3). See also *In re Brown* 173 USPQ 685; *In re Luck* 177 USPQ 523; *In re Fessman* 180 USPQ 324; *In re Avery* 186 USPQ 161; *In re Wertheim* 191 USPQ 90; and *In re Morosi* 218 USPQ 289, all of which make it clear that it is patentability of the final product per se which must be determined in a "product by process" claim, and not the patentability of the process, and that an old or obvious product produced by a new method is not patentable as a product, whether claimed in "product by process" claims or not. Note that applicant has the burden of proof in such cases, as the above caselaw makes clear.

Claims 10, 13-15, are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's prior art admissions in view of Taki '510 and Konishi '210.

From Konishi it would have been obvious to have practiced an optical coupling agent as 20 of silicone rubber to better couple the optical fiber to the photodetector device in applicant's prior art figure devices with the teachings of Taki. Claims 10, 13-15 are obvious structure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerome Jackson Jr. whose telephone number is 703 308 4937. The examiner can normally be reached on t-th 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lee can be reached on 703 308 4915. The fax phone numbers for

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the organization where this application or proceeding is assigned are 703 308 7722 for regular communications and 703 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0956.

jj
October 30, 2002


JEROME JACKSON
PRIMARY EXAMINER